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Mounting Demand for International Control of Earth Resource Satellite Data

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MOUNTING DEMAND FOR INTERNATIONAL CONTROL OF EARTH RESOURCE SATELLITE DATA

- The growing international concern over the sovereignty implications of earth resource surveys from space has recently been brought into sharpened focus at the United Nations and is creating pressure for international regulation of satellite remote sensing activities. In a move that highlights this concern, Brazil has proposed a treaty that would drastically restrict the rights of space powers to collect and release remote sensing data. The draft treaty has been circulated at the February-March 1974 meeting of the UN Working Group on Remote Sensing, a body that was established in 1971 to address a broad range of technical, economic, legal, and organizational aspects of earth resource and environmental surveys from space. Beginning with the first meeting of the Working Group in May 1972, legal aspects of remote sensing have been a very contentious issue, with many countries expressing the fear that economic advantages might be gained by states undertaking satellite surveys.
- 2. Brazil's proposals, much more restrictive than those submitted by other countries, would regulate the acquisition as well as the dissemination of remote sensing data. Most countries that have previously expressed concern over the legal issues have recognized to some degree the technical and verification problems of turning off satellite sensors at national borders. They are also well

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aware that the United States and the USSR have existing worldwide remote sensing programs. The most radical parts of the Brazilian proposal provide that a state shall refrain from the remote sensing of the natural resources of another state without the consent of the latter and, further, that a state is entitled to take measures to protect its territory and the maritime areas under its jurisdiction from remote sensing activities it has not approved. Another clause, this one with strong Law-of-the-Sea implications, gives all states the right to participate in remote sensing programs over land or maritime areas outside national jurisdiction.

- 3. Of the other countries that share Brazil's concern on this issue, only Mexico and Argentina appear to support the proposal to regulate remote sensing at the acquistion stage. Most of the other 20-odd Working Group countries that have commented on the subject agree on the need for legal principles to protect the rights of sensed countries but believe they can be less restrictive. Sets of principles have been proposed by Argentina, Canada, France, Mexico, and the USSR. Those advanced by the USSR at the second Working Group meeting in February 1973 have received the most attention; they stress regulation of the dissemination and use of earth resource data as a means to protect states' sovereign rights to control their own natural resources. In particular, they stipulate that the sensing state should provide the acquired data to the state being sensed and should not pass it to a third state without permission of the state being sensed.
- 4. In contrast, US policy in the present experimental period calls for unrestricted dissemination of data from its Earth Resource Technology Satellite (ERTS) and Skylab programs. This policy has enabled about 40 countries to participate directly in these programs and has allowed many more to order data from the United States. The United States has noted to the Working Group that its domestic law provides the Government no basis on which to deny remote sensing data to US citizens. Thus, any restrictive international data dissemination arrangement would almost certainly result in the irregular release of data through US citizens to foreign countries.

- 5. Sweden, moderating its earlier prominent stand in favor of international controls, is now suggesting that a solution to the general remote sensing problem might be found more readily through a mechanism for data dissemination rather than by a legal approach. Sweden points out that "sensitive" data covering most of the earth's land mass (from ERTS and US manned satellites) are already in the public domain, and that this reality should be considered in the legal debate. Future coverage will mainly provide new information on renewable resources, a less sensitive subject than mineral resources.
- 6. The proposed restrictions would affect the ERTS program and the US and Soviet manned earth satellite programs. The USSR proposals are inconsistent with its own practice of collecting remote sensing data about the natural resources of foreign countries without releasing the data to them. Brazil and France would also be affected later on since both have begun preliminary planning for their own earth resource satellites, to be launched perhaps as early as 1978.
- 7. In a closely related development before the convening of the Working Group proper, a special Task Force considered possible organizational mechanisms to facilitate international exchange of remote sensing data. A paper submitted by the USSR initially seemed to support the concept of free exchange of data through a UN data center. During discussion in the Task Force, however, it became clear that the USSR has in mind a small referral service that would obtain data voluntarily from contributors. In fact, the Soviet stress on voluntary release of data to any international center is more in keeping with the present USSR practice of withholding data than with the legal principles that are being proposed by the USSR in the Working Group.
- 8. As a practical matter, regulation of data dissemination is further complicated by the ability of some countries to acquire data directly from satellites. Brazil and Canada already possess ERTS ground receiving and processing stations and have agreements with the

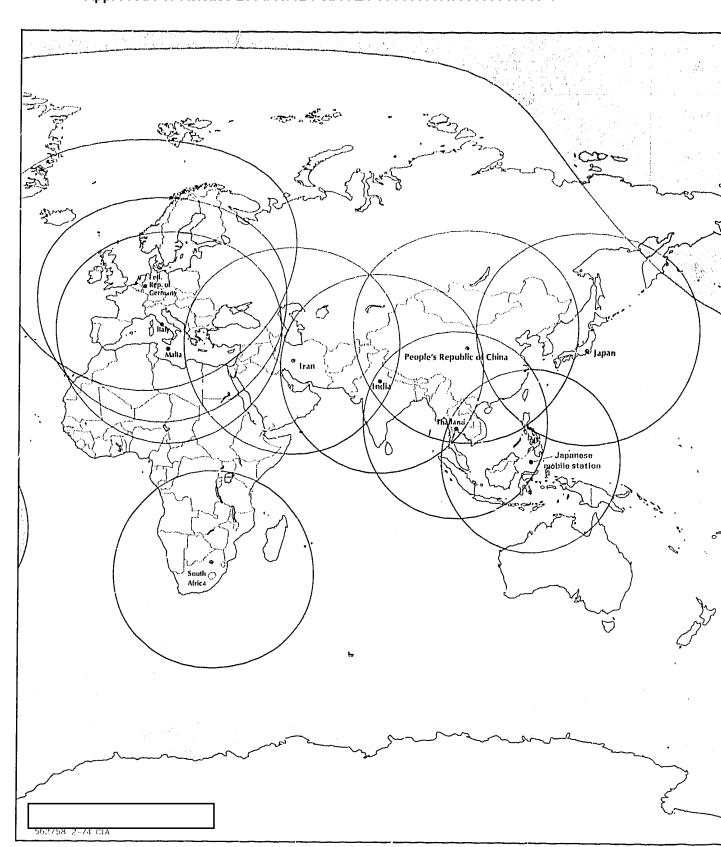
United States that provide for direct reception of ERTS data. In Brazil's case, the United States is capable of limiting that country's direct acquisition of data by limiting the area over which the satellite operates in the direct transmission mode.* However, if a country near Brazil were to obtain a ground station it would be able to receive data over Brazil without consent of either Brazil or the United States.

- 9. Situations such as this are likely to become increasingly numerous and complex. At least ten other countries are in various stages of planning or negotiating for their own ground stations (see map, following text). Japan, in fact, has expressed an interest in acquiring two ground stations, one of which would be placed on a ship for the express purpose of acquiring imagery over surrounding countries where Japan has resource interests.**
- 10. Although the most recent meeting of the Working Group did not result in any recommendations, discussion of the legal aspects of remote sensing will be renewed at a higher level in the UN. The subject has been on the agenda of the Legal S committee of the Committee on Outer Space for some years, but it has not enjoyed a high priority and will probably not be discussed at length at the next meeting of the Legal Subcommittee in May 1974. At the May meeting, however, the Legal Subcommittee can now be expected to revise these priorities and is likely to place remote sensing at the top of the agenda for 1975.

^{*}The US ERTS has two operating modes. In the direct ransmission mode images are telemetered from the satellite, as they are collected, to any ground receiving station within about 1,600 miles of the sub-satellite point. In its second mode, used when the satellite is beyond receiving range of ground stations, the satellite stores images on tape for later transmittal to US ground stations.

^{**} The placement of the Japanese mobile station on the accompaning map represents one of the most likely of several probable areas of deployment.

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